IN THE CLAIMS:

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This Listing of Claims replaces all prior Listings and versions of claims in this application.

Listing of Claims

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- 1. (Original) A process for obtaining lipid from microorganisms comprising:
 - a) lysing cells of the microorganisms to produce a lysed cell mixture;
- b) treating said lysed cell mixture to produce a phase separated mixture comprising a heavy layer and a light layer, wherein said heavy layer comprises an aqueous solution and said light layer comprises said lipid;
 - c) separating said heavy layer from said light layer; and
 - d) obtaining said lipid from said light layer.
- 2. (Original) The process of Claim 1, wherein said step (b) comprises centrifuging said lysed cell mixture.
- 3. (Original) The process of Claim 2, wherein said light layer comprises an emulsified lipid.
 - 4. (Original) The process of Claim 3 further comprising:
 - e) adding an aqueous extraction solution to said light layer of step (c); and
 - f) repeating said steps (b), (c) and (e) until said lipid becomes substantially nonemulsified prior to said step (d).
 - 5. (Cancelled)
 - 6. (Cancelled)
 - 7. (Cancelled)
- 8. (Original) The process of Claim 7 further comprising adding a base to a fermentation broth.
 - 9. (Cancelled)
- 10. (Original) The process of Claim 7 further comprising solubilizing at least part of proteinaceous compounds in a fermentation broth.
- 11. (Original) The process of Claim 1, wherein said step (a) comprises heating said microorganisms to temperature of at least about 50°C.
- 12. (Original) The process of Claim 1, wherein said microorganism is capable of growth at salinity level of less than about 12 g/L of sodium chloride.

13. (Cancelled)

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14. (Original) The process of Claim 1, wherein said microorganism is selected from the group consisting of algae, fungi, bacteria and protist.

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- 15. (Original) The process of Claim 14, wherein said microorganisms comprise microorganisms of the order Thraustochytriales.
 - 16. (Cancelled)
 - 17. (Cancelled)
- 18. (Original) The process of Claim 1, wherein said microorganisms are capable of producing at least about 0.1 grams per liter per hour of docosahexaenoic acid.
- 19. (Original) The process of Claim 1, wherein at least about 30 % of said lipid is docosahexaenoic acid.
 - 20. (Original) A process for obtaining lipids from microorganisms comprising:
 - a) growing said microorganisms in a fermentation medium to produce a fermentation broth;
 - b) solubilizing at least a part of any proteins present in said fermentation broth;
 - c) lysing cells of said microorganisms to produce a lysed cell mixture;
 - d) treating said lysed cell mixture to produce a phase separated mixture comprising a heavy layer and a light layer, wherein said heavy layer comprises an aqueous solution and said light layer comprises emulsified lipids;
 - e) separating said heavy layer from said light layer; and
 - f) obtaining said lipids from said light layer.
- 21. (Original) The process of Claim 20, wherein said step of dissolving proteins comprises contacting said fermentation broth with a base.
 - 22. (Cancelled)
- 23. (Original) The process of Claim 20, wherein said step of lysing cells comprises heating said microorganisms to a temperature of at least about 50°C.
- 24. (Original) The process of Claim 20, wherein said step of producing the phase separated mixture comprises centrifuging said lysed cell mixture.
- 25. (Original) The process of Claim 20, wherein said step of obtaining said lipids from said light layer comprises:

- (A) adding an aqueous washing solution to said light layer;
- (B) separating said aqueous washing solution from said light layer; and
- (C) repeating said steps (A) and (B) until said lipid becomes substantially non-emulsified.

26-34. (Cancelled)

- 35. (Original) A process for obtaining lipids from microorganisms comprising:
- a) growing said microorganisms in a fermentation medium to produce a fermentation broth;
- b) contacting said fermentation broth with a base to dissolve at least a part of any proteins present in said fermentation broth;
- c) increasing the temperature of said fermentation broth to at least about 50°C to lyse cells of said microorganisms to produce a lysed cell mixture;
- d) separating substances of different densities from said lysed cell mixture to produce a phase separated mixture comprising a heavy layer and a light layer, wherein said heavy layer comprises an aqueous solution and said light layer comprises emulsified lipids;
 - e) removing said heavy layer from said phase separated mixture;
 - f) adding an aqueous washing solution to said light layer;
 - g) separating substances of different densities from said mixture of step (f);
 - h) removing said heavy layer from said phase separated mixture; and
- i) repeating said steps (f)-(h) until said lipid becomes substantially nonemulsified.
- 36. (Original) The process of Claim 35, wherein said base is selected from the group consisting of hydroxides, carbonates, bicarbonates, and mixtures thereof.
- 37. (Original) The process of Claim 35, wherein said step of producing the phase separated mixture comprises centrifuging said lysed cell mixture.

38-46. (Cancelled)